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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,649	01/27/2004	Younger Ahluwalia	03137.000006	4007

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FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER

CHANG, VICTOR S

ART UNIT PAPER NUMBER

1771

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/766,649

Applicant(s)

AHLUWALIA ET AL.

Examiner

Victor S. Chang

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 2-6, 8-12, 14 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 7, 13 and 16-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Introduction***

1. Applicants' response filed on 8/22/2006 have been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Rejections Based on Prior Art***

3. Claims 1, 7, 13 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Horner, Jr. et al. (US 6365533) in view of Lynn et al. (US 6093481) and Morgan et al. (US 3062682).

Horner's invention relates to a foamed facer for an insulation board. The facer comprises a fiber mat containing a binder for the fibers, and coated with a prefoamed composition which contains a thixotropic polymer latex, a foam sustaining surfactant, and a filler, such as clays, etc. [col. 3, lines 1-14 and 45-46]. One of the first and second facers can be of the same or of a different composition [col. 6, lines 3-10].

For claims 1, 7, 13 and 16-20, Horner lacks teachings of: 1) a metallic layer is adhered to the foamed facer; and 2) the foamed facer comprises prefabricated microcells. Regarding the metallic layer, Lynn's invention is directed to an insulation board with one or two facing sheets to form a singly or doubly faced composite. In Fig. 3, Lynn shows a preferred embodiment of laminated facer comprising aluminum foil layers 23 and 24 [col. 5, lines 6-7], which provides an especially high insulation value [col. 1, lines 32-33]. It would have been obvious to one of

Art Unit: 1771

ordinary skill in the art of insulation board to modify the foamed facer of Horner with a layer of laminated (adhered) aluminum foil, as taught by Lynn, motivated by the desire to obtain an improved insulation value. As to the prefabricated microcells, Morgan's invention relates to a product composed of mineral fibers associated with a foamed material as insulating materials [col. 1, lines 11-22]. Morgan teaches that suitable fillers include resinous microballoons (prefabricated microcells), glass beads, clays, etc. [col. 13, lines 62-63]. It would have been obvious to one skilled in the art to also incorporate microballoons in the prefoamed composition of Horner as a filler material, as taught by Morgan. It should be noted that the selection of a known material based on its suitability for its intended use supported a *prima facie* obviousness determination. See MPEP § 2144.07.

#### ***Response to Argument***

4. Applicants argue [Remarks, page 5, first paragraph] that a skilled artisan would not be motivated by either Horner and Lynn to make the present invention, because the combination would, at best, suggest to a skilled artisan to make an insulation board comprising a foam core with the facer member of Horner adhered to one side of the foam core and perhaps to the facer of Lynn adhered to the other side, and there is no teaching in either reference to use the facer members or facer sheets to do anything other than face a foam core of a traditional insulation board. In response, the examiner notes that applicants appear to argue that the facer layer of Horner and the aluminum foil of Lynn must be separately adhered to the opposite surfaces of foam board, however, in Fig. 3, Lynn shows a preferred embodiment having laminated facers comprising aluminum foil layers 23 and 24 on both sides of the foam board. Further, the

Art Unit: 1771

aluminum foil layer are laminated in combination with additional outer facer layers. Clearly there is nothing whatsoever to prevent one of ordinary skill in the art to combine the teachings of Horner and Lynn to make a composite facer, applicants' argument to the contrary is unpersuasive.

Applicants argue [Remarks, page 5, second paragraph] that Horner teaches away from the combination with Lynn, because Horner teaches that aluminum facers are not desired; they cause disruption; they hold and reflect heat and often cause delamination, warping and deterioration of wood underlayment; and they are costly. However, Lynn has acknowledged the disadvantage associated with its use alone as a facer stems from its fragility, which can result, e.g., in foil breakage during foam board manufacture [col. 1, lines 32-36]. Further, the essence of Lynn's invention is to provide a preferred embodiment, as shown in Fig. 3, which overcomes the disadvantage, and is capable of providing a facers with improved toughness and properties [col. 1, lines 48-51]. There is nothing to prevent one of ordinary skill in the art of facer to combine the teachings of Horner and Lynn, and renders the instant invention obvious. As to the delamination, warping and deterioration to the wood laminate, there is no evidence that Lynn's sandwiched aluminum would have caused similar problems. Finally, regarding the cost of aluminum foil, the applicants are reminded that 1) applicants appear to argue against their own invention as undesirable; 2) Lynn has in fact stated to the contrary that aluminum foil is an inexpensive facer material [col. 1, lines 30-31], and cost obviously does not prevent one skilled in the art from providing a product with an improved performance, as taught by Lynn. Applicants' arguments are unpersuasive.

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S. Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*VSC*

Victor S Chang  
Examiner  
Art Unit 1771

9/22/2006

  
TERREL MORRIS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700